

Application No.: 10/699,691

Docket No.: 20136-00342-US1

**REMARKS**

Claims 4-10 are pending in the application. Favorable reconsideration of the application is requested.

Withdrawal of the rejection of claims 4-10 under 35 U.S.C. § 112, is requested. The claims have been amended to avoid the concerns noted in the Office Action.

As to the inquiry regarding a third winding comprising a secondary for the transformer, it is known in the electrical engineering art that transformers include a primary winding, and one or more secondary windings. As used in the current claims, the definition of primary and secondary windings are consistent with what is known in the art.

Withdrawal of the rejection of claims 4-10 under 35 U.S.C. § 103 as being unpatentable over Tanigawa et al. (JP 06-013239) in view of Frye et al. (U.S. Pat. No. 6,097,273) is requested. The present application comprises a transformer which is arranged on an integrated circuit. The transformer is formed on first and second metallization layers of a substrate which are separated by an insulating layer. A plurality of turns of a first winding are formed on the first metallization layer. On the second metallization layer, two windings are prepared, a turn of each winding being separated by the turns of the other winding. One of the windings comprises a secondary winding which is confined to the second metallization layer. The primary winding of the transformer includes the first and second windings on different metallization layers connected together. The foregoing structure provides a transformer with minimal interwinding capacity.

Turning now to the primary reference to Tanigawa et al., first and second metallization layers are provided on opposite sides of an insulation layer. Each of the windings of the transformer is shown to have a segment on both metallization layers, and no winding is confined to a single metallization layer as required in amended claim 4. In reviewing the cited reference, there appear to be two windings shown, 1 and 2. Each of the windings has a portion on each of the metallization layers, and no winding appears to be confined to a single metallization layer as set forth in the rejected claims. Independent claim 4 requires a primary winding, over two

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metallization layers and secondary windings which are confined to a specific metallization layer. It does not seem that Tanigawa et al. suggest such a structure.

Turning now to the secondary reference of U.S. Pat. No. 6,097,273, a type of balun transformer is disclosed. The balun transformer of FIG. 1 includes windings 11 and 12 on the same level or metallization layer, and windings 24 and 25 on a different metallization layer. The reference fails to disclose a primary winding, or any winding, which is on both metallization layers.

The combination of this reference showing no winding on more than one layer, with a reference which shows every winding on two different metallization layers, will not yield the structure of claim 4, which requires a primary winding on two metallization layers and a secondary winding on only one layer. Accordingly, withdrawal of the rejection is believed to be in order.

In view of the foregoing, favorable reconsideration is requested.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 09-0458, under Order No. 20136-00342-US1 from which the undersigned is authorized to draw.

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Respectfully submitted,

By 

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